

# Work Order ID 68403

Tuesday, April 12, 2011 3:37:35 PM



## PRELIMINARY ISSUE

Page 1

Item ID: D4368-041

Accept



Setup Start



Revision ID: PRELIM

Item Name: Fwd Wearplate Assembly

Stop



Start Date: 4/12/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 4/15/2011 Req'd Qty: 1.00

Customer:



Reference:

Approvals:

Process Plan:

Date:

4-04-12

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4368	PA1

100

0.00



Waterjet

FLOW CNC Waterjet

304 . 050

Memo

1-Cut as per Dwg (D4368-1)

Dwg Rev: PM

Prog Rev: PM

2-Deburr if necessary

**SCRAP**

HB 11-4-19

①

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Quality Control

Memo

0.00

HB 11-4-19

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 68403**

Tuesday, April 12, 2011 3:37:35 PM



Page 2

Item ID: D4368-041

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Fwd Wearplate Assembly

Start Date: 4/12/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 4/15/2011 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120

QC8- Inspect parts - second check

0.00 - inspected to PA1



QC

Memo

0.00 Dry only

Quality Control

0.00 Smokey (X)

130

Form as per dwg

0.00 SP 11/04/20



Brake NC

Memo

0.00

Brake NC



140

QC5- Inspect part completeness to step on W/O

0.00 - inspected to PA1



QC

Memo

0.00 Dry only

Quality Control

Smokey

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 68403**

Tuesday, April 12, 2011 3:37:35 PM



Page 3

Item ID: D4368-041

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Fwd Wearplate Assembly

Start Date: 4/12/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 4/15/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150

0.00



Large Fab

**Memo**

0.00

1- on D4369-1, fill cut outs with hardcoat welding rod as per dwg D4368

\*\*DT9756\*\*

2059 B Hardcoat Welding Rod

BATCH#: \_\_\_\_\_

2-weld D4369-1 to wearplate by positioning holes together as per dwg D4368

304 S.S. Welding Rod

BATCH #: \_\_\_\_\_

3-Transfer drill holes in bar

160

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

**Memo**

0.00

Quality Control

**POSITIVE RECALL**EFFECTIVE 4/11/13AUTH UA

RELEASED \_\_\_\_\_

DATE \_\_\_\_\_

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_






NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



**NOTE:** Date & initial all entries




**Work Order ID 68403**

Tuesday, April 12, 2011 3:37:35 PM

Page 4

Item ID: D4368-041 Accept  Setup Start   
Revision ID: PRELIM Stop   
Item Name: Fwd Wearplate Assembly  
Start Date: 4/12/2011 Start Qty: 1.00  Cust Item ID:  
Required Date: 4/15/2011 Req'd Qty: 1.00  Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 	QC5- Inspect part completeness to step on W/O	0.00							
QC Quality Control	Memo	0.00							
180 		0.00							
Small Fab Small Fab	Memo 1- After finish, coat entire top (concave) surface as per note 10 on sheet 2 dwg D4368.	0.00							
190 	QC5- Inspect part completeness to step on W/O	0.00							
QC Quality Control	Memo	0.00							

POSITIVE RECALL  
EFFECTIVE 16 April AUTH ✓  
RELEASED \_\_\_\_\_ DATE \_\_\_\_\_

PD2382

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Work Order ID 68403**

Tuesday, April 12, 2011 3:37:35 PM



Page 5

Item ID: D4368-041

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Fwd Wearplate Assembly

Start Date: 4/12/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 4/15/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

200

Identify as per dwg &amp; Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

0.00

Packaging

210

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Page 1

Tuesday, April 12, 2011 3:37:41 PM

Work Order ID: 68403



Parent Item: D4368-041



Parent Item Name: Fwd Wearplate Assembly

Start Date: 4/12/2011

Required Date: 4/15/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 11.04.12 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S18GA

Purchased

No

100

sf

204.0000

3.171

3.337895



HB HB11-4-19

304/316 .050 Sheet

Location

Loc Qty

Loc Code

MAT020

204

111743

1

112178

4

113062

18

116135

48

116604

37

116979

96

116135

D4369-1

Manufactured

No

150

Each

0.0000

1

1



Bar

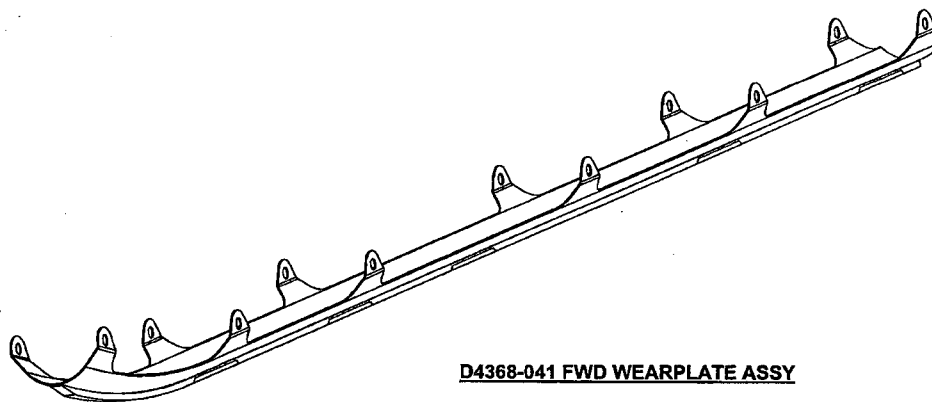
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

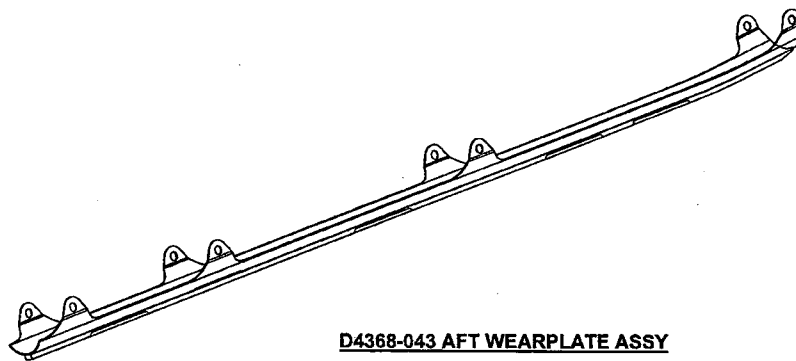
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



D4368-041 FWD WEARPLATE ASSY



D4368-043 AFT WEARPLATE ASSY

ITEM	QTY -041	QTY -043	PART NUMBER	DESCRIPTION
	X		D4368-041	FWD WEARPLATE ASSY
		X	D4368-043	AFT WEARPLATE ASSY
1	1		D4368-1	PLATE
2		1	D4368-3	PLATE
3	1		D4369-1	BAR
4		1	D4369-3	BAR
5	A/R	A/R	2059B	HARDCOAT
6	A/R	A/R	ROCKGUARD 4714	SEALANT

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 68403

*2/11-09/12*

**PRELIMINARY  
ISSUE**

PA1	NEW ISSUE	SC	11.03.24
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
DRAWN	SC		
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		D4368	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSY	NTS
DATE	11.03.24	<small>COPYRIGHT © 2011 BY DART AEROSPACE USA INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA INC.</small>	

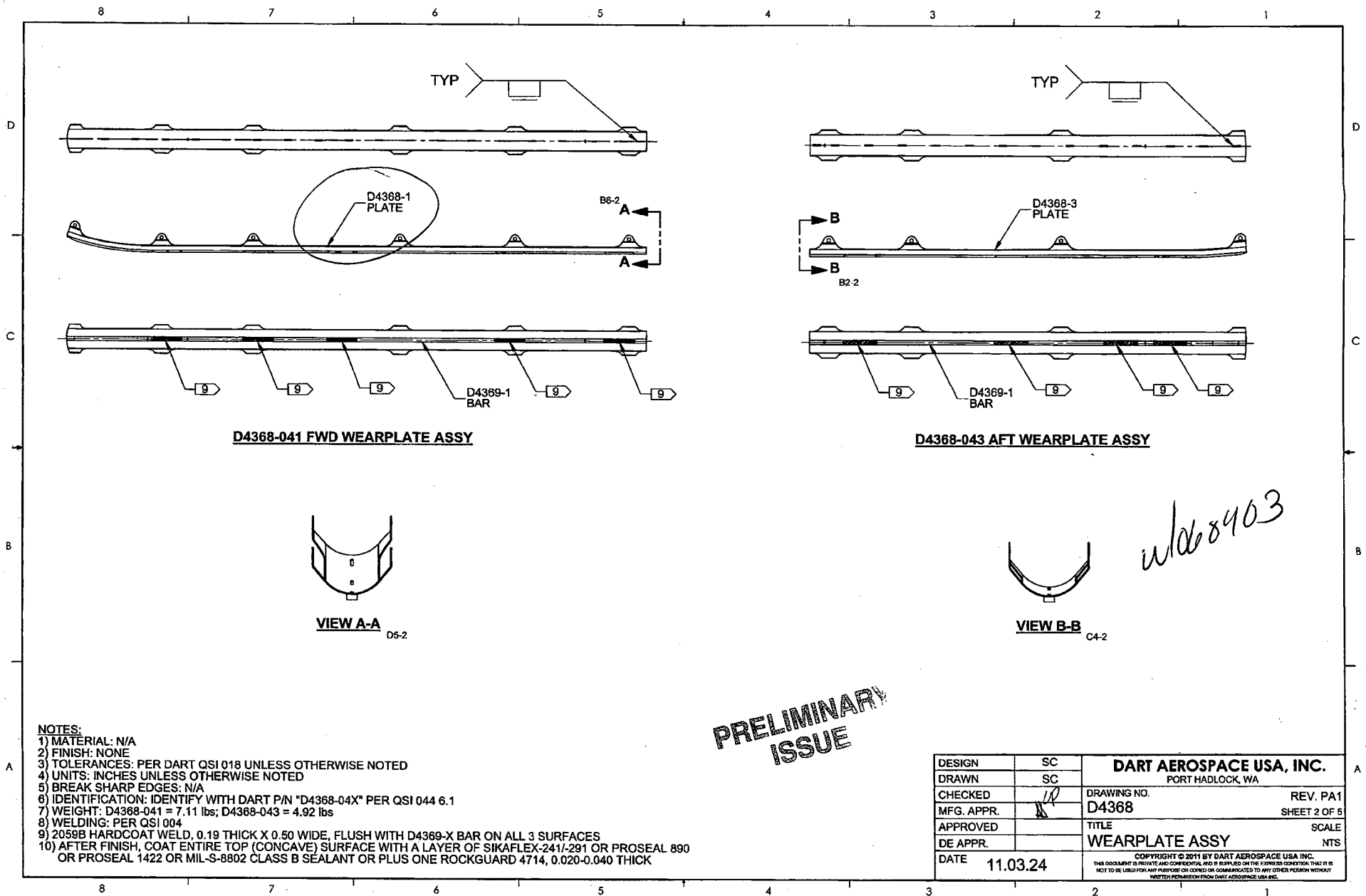
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

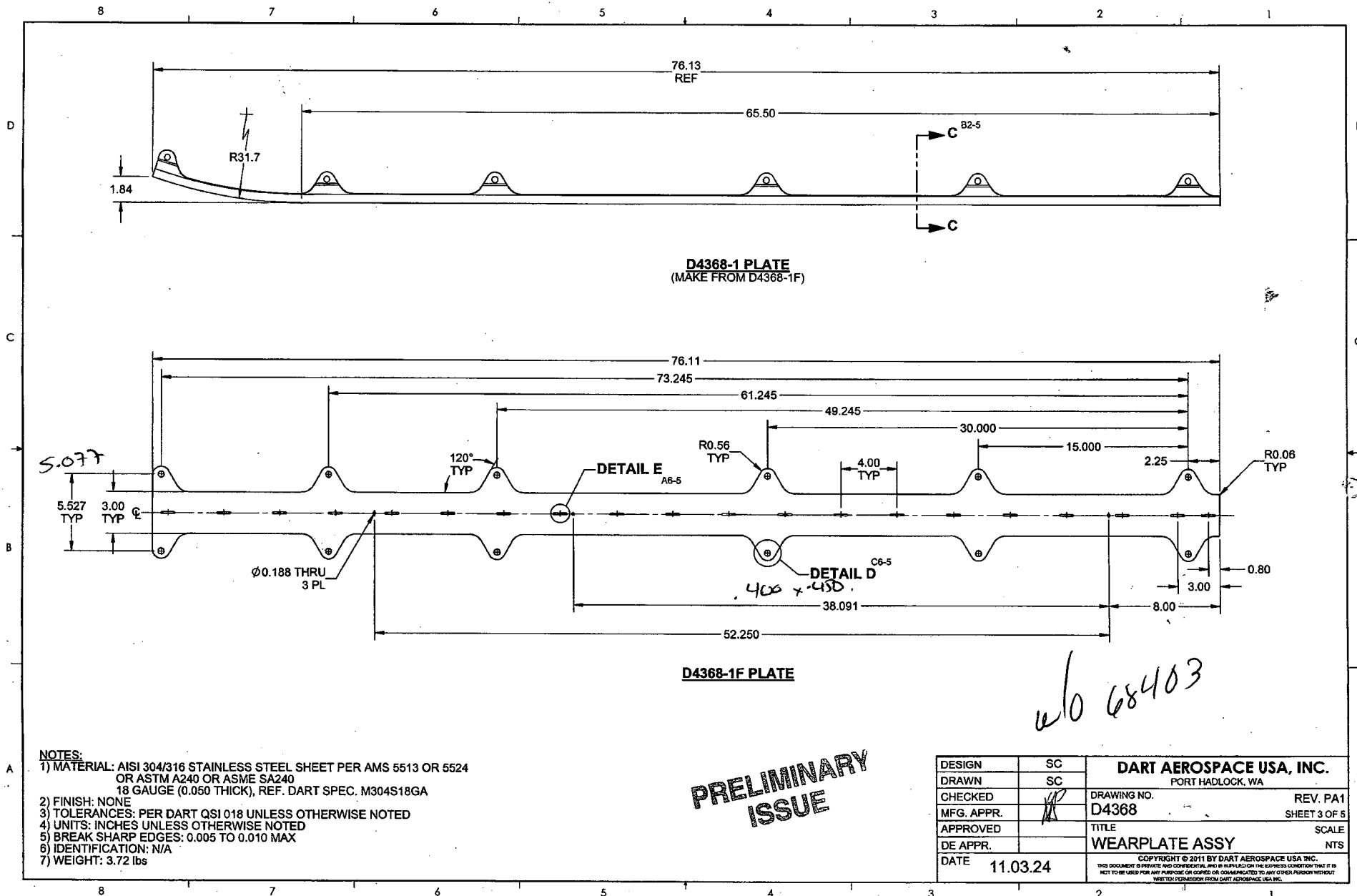
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

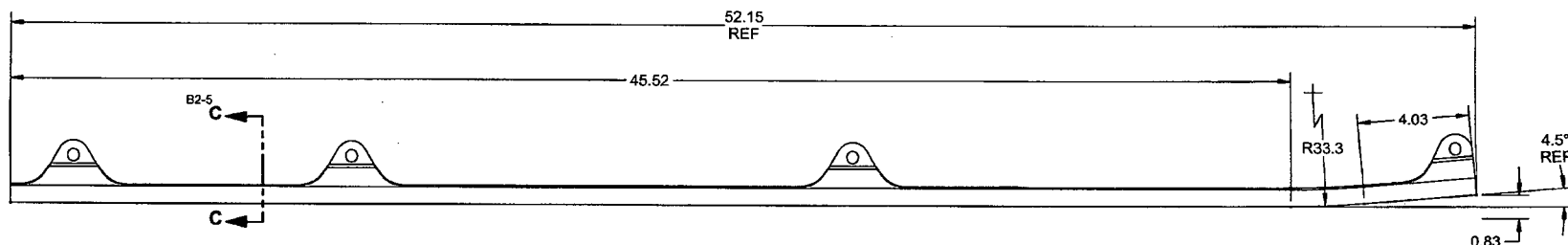
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

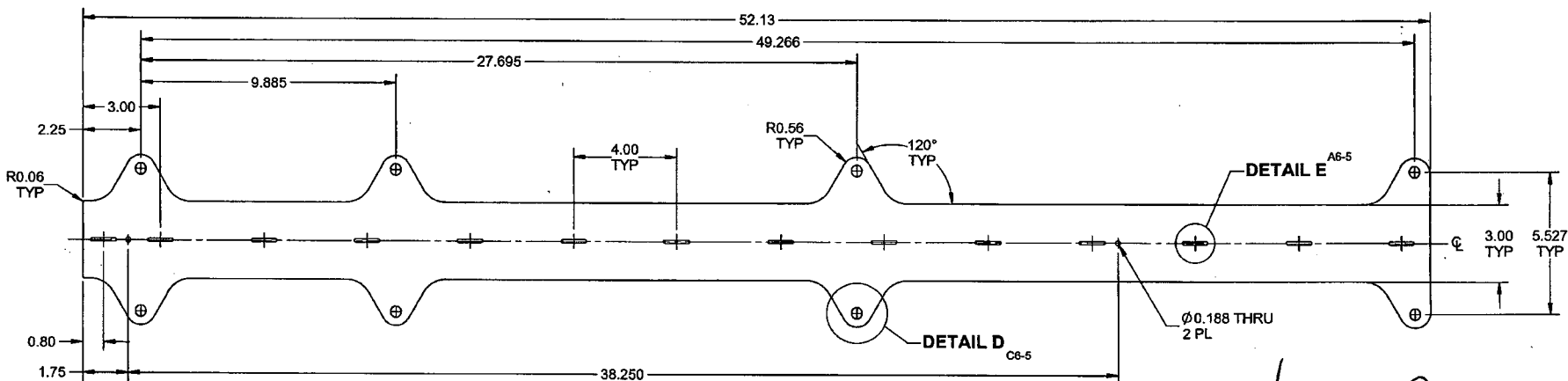
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

8 7 6 5 4 3 2 1



**D4368-3 PLATE**  
(MAKE FROM D4368-3F)



**D4368-3F PLATE**

**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240  
18 GAUGE (0.050 THICK), REF. DART SPEC. M304S18GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 2.53 lbs

**PRELIMINARY  
ISSUE**

DESIGN	SC	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
DRAWN	SC		
CHECKED	JP	DRAWING NO. <b>D4368</b>	REV. PA1 SHEET 4 OF 5
MFG. APPR.	JP	TITLE <b>WEARPLATE ASSY</b>	SCALE NTS
DE APPR.		COPYRIGHT © 2011 BY DART AEROSPACE USA INC. <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA INC.</small>	
DATE	11.03.24		

*W/O 48403*

8 7 6 5 4 3 2 1

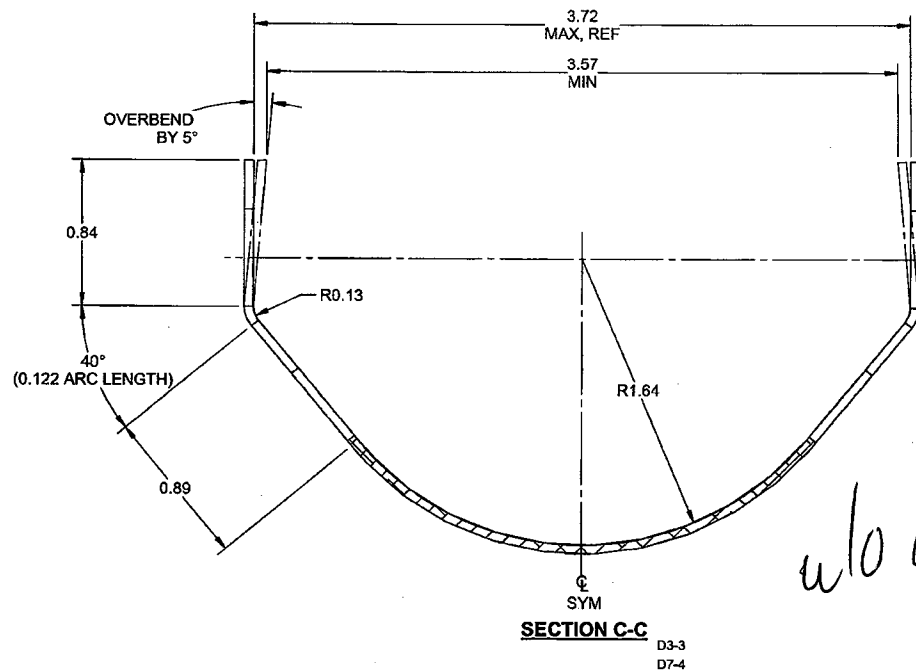
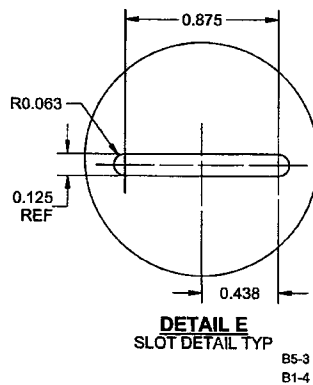
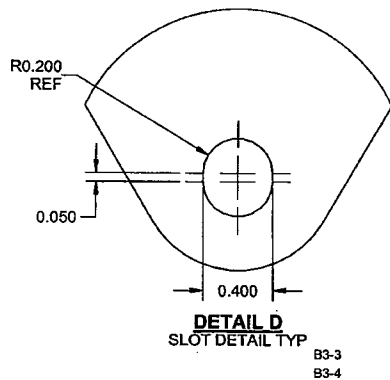
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE	CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**PRELIMINARY  
ISSUE**

*w/o 684103*

DESIGN	SC	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
DRAWN	SC		
CHECKED	<i>[Signature]</i>	DRAWING NO. <b>D4368</b>	REV. PA1 SHEET 5 OF 5
MFG. APPR.	<i>[Signature]</i>	TITLE	SCALE
DE APPR.		<b>WEARPLATE ASSY</b>	NTS
DATE	<b>11.03.24</b>	<small>COPYRIGHT © 2011 BY DART AEROSPACE USA INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA INC.</small>	

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 68403
Description: FWD WEAR PLATE ASSEMBLY		Part Number: D4368-041
Inspection Dwg: D4368-1 Rev: PA1		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.406	$\pm .010$	.405	X		V RBZ	
.125	$\pm .010$	.129	X		V	
.875	$\pm .010$	.875	X		V	
3.00	$\pm .030$	3.004	X		V	
5.527	$\pm .010$	5.529	X		V	
.86	$\pm .030$	.865	X		V	
3.00	$\pm .030$	3.00	X		V	
8.00	$\pm .030$	7.997	X		V	
2.25	$\pm .030$	2.249	X		V	
38.091	$\pm .010$	38.091	X		T RBZ	
52.250	$\pm .010$	52.250	X		T	
4.00	$\pm .030$	3.997	X		V	
15.000	$\pm .030$	15.000	X		T	
30.000	$\pm .030$	30.000	X		T	
49.245	$\pm .010$	49.245	X		T	
61.245	$\pm .010$	61.245	X		T	
73.245	$\pm .010$	73.245	X		T	
76.11	$\pm .030$	76.11	X		T	
.188	$\pm .005 - .001$	.183	X		V	
.050	$\pm .010$	.047	X		V	

Measured by: RB	Audited by: S	Prototype Approval:
Date: 11-4-14	Date: 11/04/14 to PA1 Day only	Date:
Rev A	Date	Change
		New Issue
Revised by	Approved	
KJ/JLM		

